

**FUTURE FISHERIES IMPROVEMENT PROGRAM
GRANT APPLICATION**

(please fill in the highlighted areas)

I. APPLICANT INFORMATION

- A. Applicant Name: Trout Unlimited
- B. Mailing Address: 111 N. Higgins St, Suite 500
- C. City: Missoula State: MT Zip: 59802
- Telephone: 406-218-8635
- D. Contact Person: Paul Parson
- Address if different from Applicant: _____
- City: _____ State: _____ Zip: _____
- Telephone: 406-218-8635
- E. Landowner and/or Lessee Name
(if other than Applicant): Bryan McElligott
- Mailing Address: 1404 Mount Pleasant Rd
- City: Kelso State: WA Zip: 98626
- Telephone: (360) 562-6203

II. PROJECT INFORMATION*

- A. Project Name: Ninemile Creek Reclamation Project
- River, stream, or lake: Ninemile Creek
- Location: Township T17N Range R24W Section S22
- County: Missoula
- B. Purpose of Project:
- The overall goal of the project is to reclaim the water and land in the Ninemile Creek drainage that has been affected by historical mining to improve water quality and native fish habitat. The existing damaged channel has been straightened, disconnected from the floodplain and has overly large substrate that is insufficient for spawning. The reclamation project will restore proper stream, wetland and floodplain function along a 2,500 foot reach of Ninemile Creek.
- C. Brief Project Description: _____

This project will build on the successful adjacent completed Phase 1 (2014) and Phase 2 (2016) reclamation projects on the mainstem Ninemile Creek in addition to the previously reclaimed nearby tributaries; Sawpit, Mattie V, Martina, Kennedy and Twin Creek. This project reach is located directly downstream from the Phase 1 project.

For this phase, we seek to establish naturally functioning and appropriate channel type for Ninemile Creek, including stream planform, dimensions, gradient, vegetation, and floodplain conditions. We propose to excavate approximately 13,000 cubic yards of mine waste and regrade the surrounding floodplain. The material from the removed placer mine piles will be used to partially fill existing dredge cuts along the project reach that currently inhibit proper ecological function.

Approximately 2,500 feet of stream channel will be reconstructed with an average slope of 1% on Ninemile Creek. The channel will be a Rosgen C3-4 stream type with a sinuosity of 1.4 to 1.5. Dredge tailings will be short hauled or moved with bulldozers to fill areas. Since the dredge tailings are mostly comprised of cobble and gravel - there are no heavy metals present - the material will be used to fill in historic dredge areas on site and create a floodplain that will accommodate reference conditions for Ninemile Creek. Portions of the stream channel will be reconstructed using large woody debris jams and graded riffles to maintain vertical stream stability, while initial bank stability will be achieved through brush and log matrices. The banks will be layered with willow cuttings, backfilled with screened soil, and finished with sod transplants from the salvage effort. Extensive revegetation activities will occur throughout the project, including the use of borrow soil for growth medium, wood slash for shade and microsites, vegetation clump transplants, and container planting at project completion. *Included with this application you will find project plans for this reach that exists from Station 33+00 to Station 58+00.

The overall project is part of a partnership between TU, Missoula County and the Lolo National Forest. Please see attached photos for examples of construction techniques from past projects on Sawpit, Mattie V and Twin Creek, completed in 2010, 2012 and 2014, respectively.

D. Length of stream or size of lake that will be treated: 2,500 feet

E. Project Budget: \$150,398.00

Grant Request (Dollars): \$ 32,000

Contribution by Applicant (Dollars): \$ 0 In-kind \$ 12,200
(salaries of government employees are not considered as matching contributions)

Contribution from other Sources (Dollars): \$ 91,198 In-kind \$ 15,000
(attach verification - See page 2 budget template)

Total Project Cost: \$ 150,398.00

F. Attach itemized (line item) budget – see template

G. Attach specific project plans, detailed sketches, plan views, photographs, maps, evidence of landowner consent, evidence of public support, and/or other information necessary to evaluate the merits of the project. If project involves water leasing or water salvage complete supplemental questionnaire (fwp.mt.gov/habitat/futurefisheries/supplement2.doc).

H. Attach land management and maintenance plans that will ensure protection of the reclaimed area.

A Sampling and Analysis Plan (SAP) is currently being finalized for the Ninemile placer reclamation projects in collaboration with the Montana Department of Environmental Equality. In addition, Trout Unlimited has worked with the landowners on two previous reclamation phases to ensure protection of the resources.

III. PROJECT BENEFITS*

A. What species of fish will benefit from this project?:

Upper Ninemile Creek hosts a mixed assemblage of native westslope cutthroat and brook trout. Bulltrout are known to utilize Ninemile Creek below the mining damage.

B. How will the project protect or enhance wild fish habitat?:

This project will improve wild fish habitat through revegetation of the site, re-sloping of site topography and reconstruction of the stream channel. Stream temperatures should decrease when ponded areas with maximum exposure to direct sunlight are removed. Reclaiming the mining spoil piles on Ninemile Creek will help decrease sediment sources in the system and establish a functional floodplain. Reconstructing the stream channel to proper slope and width-depth ratios will help improve sediment transport, which will both improve fish and wildlife habitat in Ninemile Creek. Constructing proper pools and riffles will also increase substrate sorting, provide for important overwintering habitat, thermal refugia and spawning gravels.

Results on this should be similar to those from the Mattie V Creek project. Pre-project measurements on Mattie V in the impaired reach showed an average of 5 pools per 100m, while there were 25 pools per 100m in the restored channel. Pre and post macroinvertebrate sampling on Mattie V Creek also showed a marked difference in the diversity and density of macroinvertebrates in the newly constructed reach.

C. Will the project improve fish populations and/or fishing? To what extent?:

Degraded habitat at and below the historical mine sites is partially responsible for the low densities of fish and presence of non-native fish and we are confident that the Ninemile Creek project will mirror results of completed reclamation projects which showed improvements in fish populations. For example, pre-restoration fish sampling on the nearby Mattie V Creek reclamation project showed an average of 8 fish per 100m in the impaired reach, most of which were brook trout. Post-restoration fish sampling in the newly constructed reach of Mattie V, however, showed that there were 35 fish per 100m with a mix of westslope cutthroat and brook trout.

On the previously completed Phase 1 Ninemile reclamation project reach, several large spawning redds were discovered by Forest Service biologists in the Spring of 2016. The size of the redds indicated that they were likely produced by large migratory fish that historically existed along this reach of Ninemile Creek. The mining damage along the Upper Ninemile Creek has essentially eliminated spawning from large fluvial fish but the reclamation work is proving to reverse this trend.

D. Will the project increase public fishing opportunity for wild fish and, if so, how?:

According to Montana FWP, Ninemile Creek had 405 days of fishing pressure in 2009. Through stream channel restoration and mining waste removal, this project will improve an important fish spawning area in Ninemile watershed and indirectly improve public fishing through increased population numbers. Channel reconstruction on Ninemile Creek will create an opportunity for public fishing for wild fish on public land and contribute to improved watershed conditions on Ninemile Creek. This project reach is located on private land with stream access from nearby bridges and adjacent forest roads.

E. If the project requires maintenance, what is your time commitment to this project?:

TU has included post project maintenance in all reclamation plans for projects in the Ninemile Creek drainage and has continued to monitor projects, like Eustache Creek, which was completed 9 years ago. TU has full time staff dedicated to project planning and these maintenance activities, including seasonal field technicians.

Additionally, project partners are committed to project monitoring to assess effectiveness. The project team has three fisheries sampling locations setup in the project area and five stream temperature monitoring stations, including two locations outside of the project area. TU is working with the University of Montana College of Forestry to develop a Senior Capstone Course project for the Wildland Restoration program to focus on monitoring the ecological effects of this and other upper Ninemile reclamation projects.

- F. What was the cause of habitat degradation in the area of this project and how will the project correct the cause?:

The Upper Ninemile Creek watershed has been heavily disturbed by placer mining and associated activities such as road building and clearing. The mining areas have been abandoned by the operators and left in an unreclaimed condition. Problems include significant alteration of channel morphology, a lack of connection with tributaries, eroding banks, and numerous barriers for upstream fish passage. The reclamation project will move large piles of dredge mining tailings, fill in mining cutslopes and dredge ponds and reconstruct a new stream channel, floodplain and wetlands.

- G. What public benefits will be realized from this project?:

This project will improve water quality through surface runoff control, improved hydrology, and mine waste removal, which will directly benefit downstream water users and the community adjacent to the Lolo National Forest. Improved fishing will benefit anglers and improved wildlife habitat in the watershed for deer, elk, moose, grouse, water fowl and small game will improve public hunting.

- H. Will the project interfere with water or property rights of adjacent landowners? (explain):

No. There are no water rights on Ninemile Creek in the area.

- I. Will the project result in the development of commercial recreational use on the site?: (explain):

No, the site located on private land in a remote part of the upper Ninemile Valley. Access is walk in only.

- J. Is this project associated with the reclamation of past mining activity?:

Yes

Each approved project sponsor must enter into a written agreement with the Department specifying terms and duration of the project.

IV. AUTHORIZING STATEMENT

I (we) hereby declare that the information and all statements to this application are true, complete, and accurate to the best of my (our) knowledge and that the project or activity complies with rules of the Future Fisheries Improvement Program.

Applicant Signature:



Date:

11/30/16

Sponsor (if applicable):

***Highlighted boxes will automatically expand.**

**Mail To: Montana Fish, Wildlife & Parks
Habitat Protection Bureau
PO Box 200701
Helena, MT 59620-0701**

**E-mail To: Michelle McGree
mmcgree@mt.gov
(electronic submissions **MUST** be signed)**

**Incomplete or late applications will be rejected and returned to applicant.
Applications may be rejected if this form is modified.**

***** Applications may be submitted at anytime, but must be signed and received by the Future Fisheries Program Officer in Helena before December 1 and June 1 of each year to be considered for the subsequent funding period.*****

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

Both tables must be completed or the application will be returned

WORK ITEMS (ITEMIZE BY CATEGORY)	NUMBER OF UNITS	UNIT DESCRIPTION*	COST/UNIT	TOTAL COST	CONTRIBUTIONS			
					FUTURE FISHERIES REQUEST	IN-KIND SERVICES**	IN-KIND CASH	TOTAL
Personnel***								
Survey	20	hours	\$80.00	\$ 1,600.00	-	800.00	800.00	\$ 1,600.00
Design	40	hours	\$95.00	\$ 3,800.00	-	1,900.00	1,900.00	\$ 3,800.00
Engineering	40	hours	\$85.00	\$ 3,400.00	-	1,700.00	1,700.00	\$ 3,400.00
Permitting	24	hours	\$50.00	\$ 1,200.00	-	600.00	600.00	\$ 1,200.00
Oversight	80	hours	\$90.00	\$ 7,200.00	-	7,200.00	-	\$ 7,200.00
Labor	20	hours	\$40.00	\$ 800.00	-	-	800.00	\$ 800.00
			Sub-Total	\$ 18,000.00	\$ -	\$ 12,200.00	\$ 5,800.00	\$ 18,000.00
Travel								
Mileage	1750	miles	\$0.56	\$ 980.00			980.00	\$ 980.00
Per diem	10	days	\$100.00	\$ 1,000.00			1,000.00	\$ 1,000.00
			Sub-Total	\$ 1,980.00	\$ -	\$ -	\$ 1,980.00	\$ 1,980.00
Construction Materials****								
Rootwads	150	each	\$50.00	\$ 7,500.00		3,750.00	3,750.00	\$ 7,500.00
Boulders	100	each	\$50.00	\$ 5,000.00		2,500.00	2,500.00	\$ 5,000.00
Sreened Cobble	950	cubic yards	\$10.00	\$ 9,500.00		4,750.00	4,750.00	\$ 9,500.00
Willow Cuttings	8000	each	\$1.00	\$ 8,000.00		4,000.00	4,000.00	\$ 8,000.00
Riparian Plants	500	each	\$8.00	\$ 4,000.00			4,000.00	\$ 4,000.00
Wetland Seed	0.8	acres	\$365.00	\$ 292.00			292.00	\$ 292.00
Riparian Seed	4	acres	\$185.00	\$ 740.00			740.00	\$ 740.00
Brush and Slash	600	cubic yards	\$10.00	\$ 6,000.00			6,000.00	\$ 6,000.00
				\$ -			-	\$ -
			Sub-Total	\$ 41,032.00	\$ -	\$ 15,000.00	\$ 26,032.00	\$ 41,032.00
Equipment and Labor								
Site Prep- Excavator	24	hours	\$150.00	\$ 3,600.00			3,600.00	\$ 3,600.00
Site Prep-Dump	20	hours	\$100.00	\$ 2,000.00			2,000.00	\$ 2,000.00
Excavating and Grading	13508	cubic yards	\$4.50	\$ 60,786.00	12,000.00		48,786.00	\$ 60,786.00
Channel Shaping - Excavator	80	hours	\$150.00	\$ 12,000.00	12,000.00		-	\$ 12,000.00
Channel Shaping - Dump	80	hours	\$100.00	\$ 8,000.00	8,000.00		-	\$ 8,000.00
				\$ -			-	\$ -
			Sub-Total	\$ 86,386.00	\$ 32,000.00	\$ -	\$ 54,386.00	\$ 86,386.00
Mobilization								
Mobilization	1	each	\$1,500.00	\$ 1,500.00			1,500.00	\$ 1,500.00
Demobilization	1	each	\$1,500.00	\$ 1,500.00			1,500.00	\$ 1,500.00
				\$ -			-	\$ -

BUDGET TEMPLATE SHEET FOR FUTURE FISHERIES PROGRAM APPLICATIONS

			\$	-			-	\$	-
			Sub-Total	\$	3,000.00	\$	-	\$	3,000.00
			TOTALS	\$	150,398.00	\$	32,000.00	\$	27,200.00
								\$	91,198.00
								\$	150,398.00

OTHER REQUIREMENTS:

All of the columns in the budget table and the matching contribution table MUST be completed appropriately or the application will be invalid. Please see the example budget sheet for additional clarification.

*Units = feet, hours, inches, etc. Do not use lump sum unless there is no other way to describe the costs.

**Can include in-kind materials. Justification for in-kind labor (e.g. hourly rates used for calculations). Describe here or in text.

Reminder: Government salaries cannot be used as in-kind match

***The Review Panel suggests that design and oversight costs associated with a proposed project not exceed 15% of the total project budget. If design and oversight costs are in excess of 15%, applications must include a minimum of two competitive bids for the cost of undertaking the project.

****The Review Panel recommends a maximum fencing cost of \$1.50 per foot. Additional costs may be the responsibility of the applicant and/or partners.

MATCHING CONTRIBUTIONS (do not include requested funds)

CONTRIBUTOR	IN-KIND SERVICE	IN-KIND CASH	TOTAL	Secured? (Y/N)
Trout Unlimited	\$ 12,200.00	\$ -	\$ 12,200.00	Y
Lolo National Forest		\$ 86,198.00	\$ 86,198.00	N
Missoula County Conservation District	\$ -	\$ 5,000.00	\$ 5,000.00	N
Landowner	\$ 15,000.00	\$ -	\$ 15,000.00	Y
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTALS	\$ 27,200.00	\$ 91,198.00	\$ 118,398.00	

NINEMILE CREEK

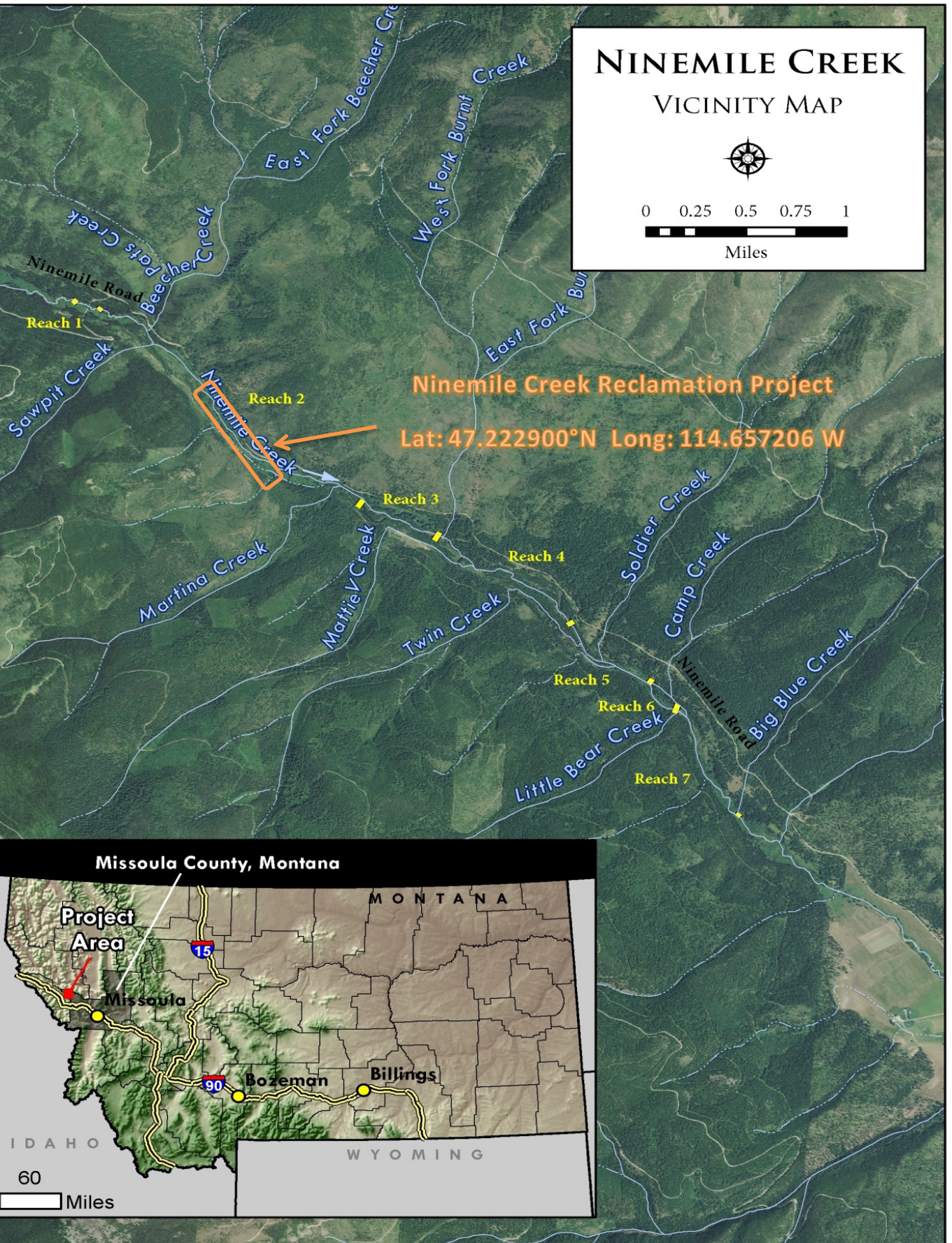
VICINITY MAP



0 0.25 0.5 0.75 1
Miles

Ninemile Creek Reclamation Project

Lat: 47.222900°N Long: 114.657206 W



Missoula County, Montana



Bryan McElligott
1404 Mount Pleasant Rd
Kelso, WA 98626

Future Fisheries Improvement Program
c/o Michelle McGree
Montana Fish, Wildlife & Parks
P.O. Box 200701
1420 E. 6th Avenue
Helena, MT 59620-0701

RE: Trout Unlimited Funding Request for upper Ninemile Creek Mine Reclamation Work

Dear Panel Members:

Please accept this letter as my endorsement of the Upper Ninemile Creek reclamation project in the Ninemile Creek watershed. My family owns this reach of Ninemile Creek and we have worked with Trout Unlimited to achieve the restoration goals and improve the land impacted by mining. Trout Unlimited (TU), Missoula County, FWP and the Lolo National Forest have been working on cooperative projects in the Ninemile Creek drainage for nearly a decade. This broad-based group also includes other private landowners, state agencies, watershed groups, volunteers, and other conservation organizations.

To date, the cooperative effort has led to the reclamation and reconnection of eight tributary streams, with survey and design efforts on two other tributaries ongoing. TU has dedicated staff time and financial resources to these and other projects in the drainage and raised more than \$1.8 million for mine reclamation and watershed restoration in the area.

Planning and data collection on mainstem Ninemile Creek have been ongoing for nearly seven years, and this grant continues the large scale implementation effort to rehabilitate nearly five miles of the creek. Funds from the Future Fisheries Program are essential to completing on-the-ground reclamation projects and will be matched by federal and private funds.

Thank you very much for the funding opportunity and your continued work for conserving natural resources. Please do not hesitate to contact me if you have any questions.

Sincerely,



Bryan McElligott



Montana Fish, Wildlife & Parks

3201 Spurgin Road
Missoula, MT 59804
Phone 406-542-5506
E-mail lknotek@mt.gov
Fax 406-542-5529

November 29, 2016

Future Fisheries Improvement Program
c/o Michelle McGree
Montana Fish, Wildlife & Parks
P.O. Box 200701
1420 E. 6th Avenue
Helena, MT 59620-0701

RE: Trout Unlimited Funding Request for upper Ninemile Creek Mine Reclamation Work

Dear Panel Members:

This letter is written in support of Trout Unlimited's application for mine reclamation and stream habitat improvement funds in the upper Ninemile Creek drainage near Missoula. Specifically, funds are requested for implementation work on the Ninemile Creek project in upper Ninemile Creek. Missoula County and the Lolo National Forest are the primary partners on these projects.

Ninemile Creek is a very important tributary for the middle Clark Fork fishery and contributes to native fish conservation. This drainage supports many populations of native westslope cutthroat trout (MT Species of Concern) in tributary reaches and historically supported a viable bull trout population (Federally Threatened). Ninemile Creek also supports some of the largest rainbow and brown trout runs in the region, which provide recruitment to the Clark Fork fishery near Missoula (>40,000 angler-days per year in 2001-2011). Healthy tributaries are a key to the productivity and continued recovery of this system. The proposed project is located on important stream segments near the headwaters of the watershed. The project reaches contain westslope cutthroat trout with high genetic purity and brook trout.

The Ninemile Creek drainage has experienced extensive mining impacts over the past century. The proposed project addresses priority mine reclamation sites identified in the Ninemile TMDL process and builds upon recently completed and planned reclamation work in Sawpit, Eustache, Little McCormick, Mattie V, and Twin Creeks by project partners. All of these similar, large projects were implemented successfully and have been closely monitored upon completion. Results have been impressive.

I strongly recommend granting funds for these projects for several reasons: 1) these sites are recognized as high priority reclamation sites, 2) project partners have demonstrated their commitment in following through with high quality work on the ground, and 3) funds requested are a small proportion of the total project cost. Please give strong consideration to these proposals and feel free to call me with questions at 542-5506.

Sincerely,

Ladd Knotek
Fisheries Biologist



Ninemile Creek Mining Damage



**Completed Constructed Riffle and Pool on
Phase 1 (Fall 2015)**

Ninemile Channel Construction on Phase 2 (Fall 2016)



Spawning Redds- Phase 1 Reach (Spring 16)